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REDISCOVERY OF THE JERDON'S OR DOUBLE- BANDED COURSER *Cursorius bitorquatus* (BLYTH)¹

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(With a colour plate & a text-figure)

The Jerdon's or Double-banded Courser *Cursorius bitorquatus*, last recorded in 1900, is one of the rarest avian species in the world. Lack of subsequent records led to the presumption that the species may be extinct. Surveys carried out in 1985-86 finally established the presence of the species in Cuddapah district of Andhra Pradesh.

INTRODUCTION

The Jerdon's or Double-banded Courser *Cursorius bitorquatus* (Blyth) was first "procured" and recorded for science by Dr. T. C. Jerdon (Blyth 1848) in c. 1848 "from the hilly country above the Eastern Ghats, off Nellore, and in Cuddapah" (Jerdon 1877). Blanford (1898) recorded the Double-banded Courser in March 1871 near Sironcha and Bhadrachalam near the Godavari river-valley in northern Andhra Pradesh. The last "presumably authentic sighting" was by Howard

Campbell in 1900 in the Pennar river valley near Anantapur (Ali 1977).

The 1900 record near Anantapur being the last, led to the Double-banded Courser being considered as one of the rarest avian species in the world.

Jerdon (1877) on the basis of his bird surveys in the Eastern Ghat areas in southern Andhra Pradesh remarked that he believed the Double-banded Courser to be a "permanent resident" and an "almost unique instance of a species of Plover having such an extremely limited geographical distribution". The lack of sightings subsequent to Blanford (1898) and Campbell (Ali 1977), indicates that the Double-banded Courser is known only "from a restricted area in eastern India, from the

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valley of the Godavari river, near Sironcha and Bhadrachalam, and from Nellore, Cuddapah and Anantapur in the valley of the Pennar river" (Greenway 1958, Ali and Ripley 1969).

Whistler and Kinnear (1930) during the ornithological survey of the Eastern Ghats (in 1929-31) and Ali (1933-34) during his Hyderabad State Ornithological Survey (in 1931-32) had covered the known range of the Jerdon's Courser "pretty thoroughly" without success. Later, two "special explorations" organized by the Bombay Natural History Society in 1975 and 1976 with the collaboration of Smithsonian Institution and World Wildlife Fund-India respectively did not achieve positive results (Ali 1977). A poster prepared for the Society by J P Irani showing the Jerdon's with the Indian Courser in colour, was circulated in Andhra Pradesh and adjoining States during these years without eliciting any positive response.

This continual failure to record the Double-banded Courser resulted in several authors (Ripley 1952, 1961, Howard and Moore 1980, Walters 1980, King 1981) listing the species as either extinct or thought to be as such. The possibility of this truly peninsular endemic becoming extinct was very improbable considering the vastness of potentially suitable habitat in the lower peninsula. As results from this Study show, the effort to search out the Double-banded Courser had been "too little" (Ali & Ripley 1985).

SURVEY

The Bombay Natural History Society under the aegis of its research project — 'Study of the Ecology of Rare and Endangered Species of Wildlife and their Habitat', funded by the Fish & Wildlife Service, USA, through the

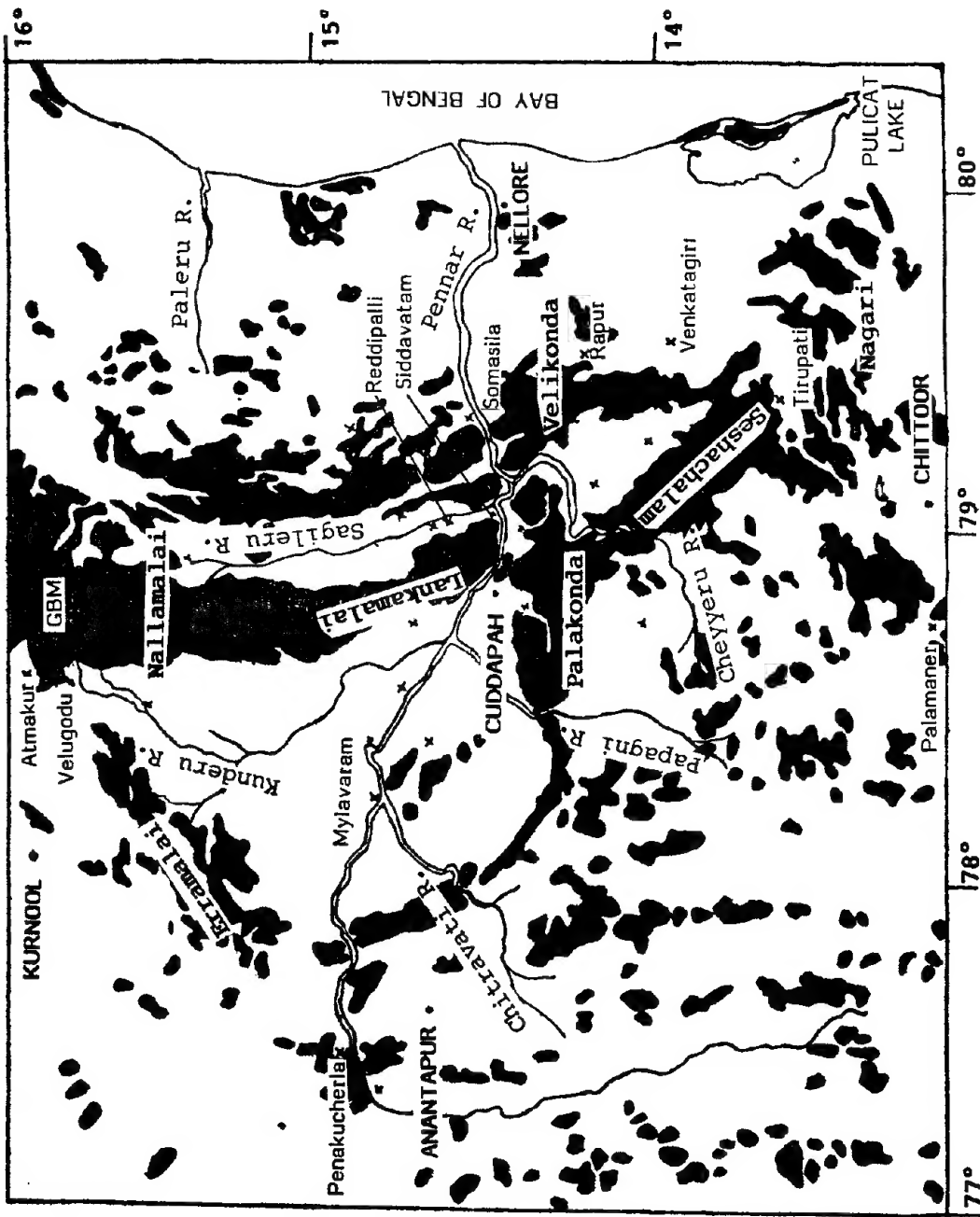
Department of Environment, Government of India — decided in May 1985 to survey the Pennar river valley areas in southern Andhra Pradesh and try to establish whether the Double-banded Courser is still present or extinct in these areas.

Towards this end, a preliminary survey (Bhushan 1985a) was carried out over the Pennar river-course and its adjoins (9th-16th, 23rd-24th June and 2nd-4th July 1985). Based on results from the preliminary survey, spot-survey locations were decided upon and conducted (Bhushan 1985b) at Somasila in Nellore district and at Siddavatam in Cuddapah district (5th-6th and 12th September to 5th October 1985; 12th-27th January and 3rd-6th February 1986).

Jerdon had mentioned the "hilly country above the Eastern Ghats, off Nellore, and in Cuddapah" and Campbell had sighted the Courser in the Pennar river valley areas near Anantapur. Since the Pennar river flows through Cuddapah and Nellore before flowing into the Bay of Bengal, the river-course was to be considered as the first term of reference.

The next point to be determined was the habitat-type in which to locate the Double-banded Courser. Found to inhabit "rocky and undulating ground with thin forest jungle", Jerdon (1877) believed the Double-banded Courser to be a "mountain form of *Cursorius*, frequenting rocky hills with thin jungle". Blanford (1898) recorded the species "in thin forest or high scrub, never in open ground". He "never saw any on hills", in contrast to Jerdon's belief.

Thus, going by their descriptions of the habitat-types, the Double-banded Courser would be inhabiting areas totally unlike those favoured by the Indian Courser. The survey



SCALE : 1 : 1,000,000

SOURCE : FOREST ATLAS MADRAS PLATE 12

Fig. 1. The Pennar river valley areas in the Eastern Ghats complex of southern Andhra Pradesh.

had to locate hilly and low undulating ground near the Pennar river or better still comprising valley areas over the river's course through the three districts. (see Fig. 1).

METHODOLOGY

The BNHS had used a poster from a colour painting by J. P. Irani showing both the Jerdon's and Indian Courser. This had been distributed along with a descriptive note written in English for Andhra Pradesh and adjoining states for feedback. The most obvious error here was the absence of a Telugu note for the Pennar river-valley areas. The Godavari river-valley areas would require notes in the Telugu, Marathi, Oriya and Urdu languages.

This error was rectified by having the English note translated into Telugu and xeroxed along with the colour plate. One hundred copies were distributed personally by me to only concerned individuals like Forest Officials, local shikaris and tribals proficient in bird-trapping.

The second visual aid used for cross-examining locals was the PICTORIAL GUIDE TO BIRDS OF THE INDIAN SUB-CONTINENT by Ali & Ripley (1983). This was used to verify the local informants' depth of knowledge; his ability to distinguish different birds at a glance; and, the ability to describe each bird that he identified coupled with a local logical name.

The enquiries were followed up by walking about in the area, listing the birds seen and deciding if it would be the correct habitat-type for the Double-banded Courser. This was alternated by examining the area from a convenient point using a spotterscope for scanning. Equipment used included a 12 x 50 Binoculars and a spotterscope of 10 x magnification.

Bhushan (1985a & b) has described the preliminary survey and spot-surveys in detail. From the number of enquiries made during these surveys, three shikaris gave three versions of what may be the Jerdon's or Double-banded Courser. Of these three versions, an account of the Siddavatam locality — which turned out to be correct — is given below.

THE SIDDAVATAM AREA: CUDDAPAH DISTRICT

The Lankamalai ranges at Siddavatam are about 20 km from Cuddapah. From Siddavatam, the hills range north towards the Nallamalais at Nandyal (in Kurnool district) and south to the Palakondas at Vontimitta and to Tirupati (in Chittoor district). Eleven kilometres from Cuddapah towards Siddavatam, the slopes are gentle and all the hills have scrub vegetation. This type of apparently suitable vegetation/habitat (to the Double-banded Courser) continues to Siddavatam along the foothills. The Pennar river flows along the Siddavatam settlement.

With the help of the local (Siddavatam) Forest Range Officer, I met a small-game 'vetagadu' (= shikari) named Aitanna residing at Reddipalli village, 12 km from Siddavatam. He could not recognise the Double-banded Courser, but said he knew the Lesser Florican *Sypheotides indica*, known here as 'nela nemili' (nela = ground; nemili = peafowl), which was seen only in the rains. Some of the other villagers standing around, could also recognise the Lesser Florican from the 'Pictorial Guide'. Aitanna later informed me of the presence of an experienced Yaanadi (= name of a tribe, that used to depend partly on shikar as subsistence; now settled in exclusive settlements or at village-adjuncts) tribal named Pichchanna, at Kumbagiri village, about 12

km after Reddipalli, between Siddavatam and Badvel.

Pichchanna recognised the Double-banded Courser from the poster and said that it was known as 'Kalivi-kodi'. The word 'Kalivi' is the Telugu word for *Carissa* which is the common scrub vegetation along with *Zizyphus* and *Acacia* in the area. 'Kodi' means fowl. According to Pichchanna, the name 'Kalivi-kodi' was an apt description for the bird on account of its habit of hiding amidst the thorny *Carissa* bushes.

The *Carissa* grows to about 2-3 metres in height in the reserve forest areas on the foothills of the Lankamalai, whereas in the revenue areas, i.e., non-protected areas below the range-demarcation line towards Kumbagiri, the *Carissa* is shorter, about 1-2 m tall. Also due to over browsing, *Carissa* in the revenue areas grows horizontally in some spots at an height of about 50 cm from the ground. It was next to these low *Carissa* bushes that Pichchanna had seen the Kalivi-kodi and not under taller ones.

According to Pichchanna, the Kalivi-kodi is 'just a bit' larger than the Grey Partridge *Francolinus pondicerianus*, and mainly seen during the rainy season and is difficult to spot. When disturbed, the Kalivi-kodi walks for 'some distance' stops and flies away to a nearby spot. He has always seen them in flocks of 7-8 birds, never seen them in cultivation, near artesian wells or near other water-areas. He described the call as to be 'very sad'; a single note and very soft.

He has always seen the birds only during the rainy season in the plain-foothills, exploited-scrub areas after the range demarcation line (on the foothills), and presumes that it

may be seen on the hills. It was 'many' years since he stopped shikar (This statement may have been due to the presence of the Forest Range Officer with me) and could not pinpoint any location in the hills, but could take me around in the foothill scrub areas after the monsoon started.

Pichchanna knew birds well and said he could identify them in the field separately. He could identify and describe the habits of partridge, sandgrouse, lapwings (here known as 'utha-titti' (!), 'uththithi' and also as 'Uththutha-gaadu' at Chittapalli village; — meaning 'stammerer'), Lesser Florican (which he claims to have trapped a number of times 'a long time back') and Grey Jungle Fowl *Gallus sonneratii*.

The name 'thiththi' may phonetically correspond to the 'Adavi-wuta-titti' mentioned by Jerdon (1877) as being the Telugu name of the Double-banded Courser, supposedly meaning 'Jungle-empty-purse'. Ali and Ripley (1969) mention that the name is not current and/or locally understood. Obviously, the name must have meant 'Forest Lapwing' (Adavi = Forest), and not the literal translation that Jerdon claimed.

I visited the Siddavatam area again in October 1985 and contacted Pichchanna at Kumbaviri village. His information was not very helpful. He maintained that his meagre financial resources over the past few months had prevented him from indulging in shikar/bird-trapping on the hills.

Aitanna at Reddipalli village was very encouraging. During the preliminary survey he had disclaimed knowledge of the Double-banded Courser. This time however, he claimed to have kept a watch during his shikar

trips and had sighted the Kalivi-kodi a number of times in the scrub forests, below the Lankamalai hills. He claimed that he sighted the birds in the night when out hunting with powerful torches. He insisted that the bird was seen to be feeding normally at night.

During the period of my stay in October 1985 at Siddavatam and Somasila, there were heavy rains and a dense cloud-cover present on the hill-slopes. Aitanna refused to search for the bird in the night with the flashlight as the equipment would be useless in the rains. With the cloud-cover on the slopes, there would be no visibility at all. These areas were then decided to be surveyed in detail during December 1985 to January 1986.

DISCUSSION

Having come to know first-hand the possible locations of the Double-banded Courser along the Pennar river, and having got three presumptive descriptions of the species, the next step had to be towards minimising field-effort towards procuring a definite record. Naturally, this would depend on the presumptive descriptions.

The claims by local people about the Double-banded Courser could not be cross-checked with literature on the species as the recorded information (Jerdon 1877, Blanford 1898) lacked in detail vis-a-vis the specific location/s and the biology. Since the congeneric under Rintley's (1961) listing, *Cursorius coromandelicus* prefers "dry stony plains and fallow fields" unlike the *C. bitorquatus* (as recorded by Jerdon and Blanford). I decided to check on congenics under *Rhinoptilus* as listed by Howard and Moore (1980) for the Double-banded Courser.

Peters (1934). Howard and Moore (1980) and Walters (1980) classify the Jerdon's or Double-banded Courser as *Rhinoptilus bitor-*

quatus. The congenics of the Double-banded Courser according to their 'Checklist's are the Two-banded Courser *R. africanus*, Heuglin's Courser *R. cinctus* and the Bronze-winged Courser *R. chalcopertus*. Presuming that congenics would have some similar behavioural characteristics, interesting points about the three African *Rhinoptilus* that were thought to be pertinent when compared to my survey results is tabulated (Bannermann 1931, 1951, Mackworth-Praed and Grant 1952) (Table 1).

Taking into consideration the congenics' descriptions, and comparing them to survey records, the Double-banded Courser was thought to be (in December 1985): Found in thorn scrub country; similar in field-appearance to the lapwings; ground nesting bird with no nest-building; resting during the day under shade of a thorn tree; uncommon in areas of distribution-range and also able to evade observation successfully; and, crepuscular and/or nocturnal in habit. These points were to be regarded as a 'reference frame' for future surveys.

JANUARY 1986

Following the two surveys and comparisons of congenics in literature (mentioned above), I decided to leave aside the Anantapur and Nellore areas. Ali (1977) had claimed the Anantapur record to be only a "presumably authentic sighting", and the Nellore areas at Somasila had very high disturbance levels to the local fauna due to the Telugu Ganga Canal working (Bhushan 1985b).

The probable claim of knowing the bird at Cuddapah was from the Yaanadi Pichchanna at Kumbagiri village and Aitanna at Reddipalli village in the Siddavatam area. Before these

REDISCOVERY OF THE JERDON'S COURSER

TABLE 1

COMPARISON BETWEEN *Rhinoptilus* SPP. (AS CLASSIFIED IN HOWARD & MOORE 1980)

<i>R. bitorquatus</i>	<i>R. africanus</i>	<i>R. cinctus</i>	<i>R. chalconotus</i>
Prefers scrub with thin forest.	Birds of rocky thorn scrub country, sandy plains and salt-deserts.	Rarely found away from thick thorn scrub.	Prefers bush-covered country/woodland in some areas.
?	Not common anywhere, scattered over wide areas.	—	Evades observation successfully even if present in the area in any numbers/uncommon in many places.
Hides/rests amongst thorn scrub bushes like <i>Carissa</i> during the day; when disturbed, walks for 'some' distance, stops and takes to flight.	Resting by day in the shade of a thorn tree; prefer to run and take to flight only when approached near.	—	Found to be nearly stationary under bushes during the heat of the day; not easily seen when motionless, and takes to air only when approached near.
May be crepuscular and/or Nocturnal (local enquiries).	—	Largely Nocturnal.	Nocturnal in habit ("this may account for the paucity of records")/crepuscular.

claims could be investigated in detail, justification had to be sought from records in literature. Cuddapah had been mentioned only by Jerdon (1877).

First, I had to decide whether the Lankamalai ranges of the Eastern Ghats complex was in confirmation with Jerdon's geographical pointer. Second, was the question, as to whether the Yaanadi tribals, my contacts in the Cuddapah and Nellore areas, were ever contacted by Jerdon during his surveys in the Eastern Ghats.

Elliot (1873) in his biography of T. C. Jerdon, lists the latter's army postings in detail. He states that (that Jerdon had): "...

an opportunity of seeing a part of the country difficult of access and rarely visited; and he did not neglect it, as his notices of the birds of the Eastern Ghats subsequently showed."

"After passing about four years with his regiment, he obtained leave of absence to visit the Nilgiri hills, where he was married in July 1841. Six months afterwards, he was appointed Civil Surgeon of Nellore..."

"The wilder parts of the country between Madras and Nellore are occupied by the Yaanadis, a remarkable aboriginal tribe, of seminomad habits, subsisting on the spontaneous produce of the jungles, and possessing in consequence a minute acquaintance with the

forms of animal and vegetable life around them. By their means Dr Jerdon discovered many new species, ..."

Having thus been proved by Jerdon's biography that I was on the right track, as regards the Yaanadis, there still remained the first point about the geographical location to be decided upon. Jerdon (1877) had claimed of procuring the bird "in the hilly regions above the Eastern Ghats, off Nellore and in Cuddapah".

The Eastern Ghats at Cuddapah are the Velikonda ranges running north/north-easterly from Tirupati. The other ranges, the Seshachalams, Palakondas, Nagari, Lankamalai, Nallamalais, and Erramalais together with the Velikondas form the Eastern Ghats complex in southern Andhra Pradesh.

The Velikonda ranges, if regarded as the "Eastern Ghats", cancelled out the Nellore district as any area for survey. Jerdon had mentioned "off Nellore" and the Velikondas were the district boundary between Nellore and Cuddapah. The subsequent mention, "and in Cuddapah" would then obviously mean a location in that district.

The only point that confused me was the mentioned of "hilly regions above the Eastern Ghats". Jerdon had been posted at Nellore. From the Nellore city, any hills/hill-ranges west of the Velikondas could be hilly regions "above" the Eastern Ghats if Jerdon had generalised in describing the location. Thus, the "hilly regions" would be either the Palakondas or the Lankamalai hills.

Taking into consideration — (1) the proximity of the Pennar river to the Lankamalai rather than the Palakondas, (2) Pichchanna, an experienced aged Yaanadi bird-trapper,

who described the 'Kalivi-kodi', (3) Aitanna, who though not a Yaanadi had confirmed that the 'Kalivi-kodi' could be the Double-banded Courser by having examined it closely with his powerful torchlight, (4) the mention of the *Rhinoptilus* spp. being nocturnal/crepuscular in habit being confirmed by Aitanna for the 'Kalivi-kodi', and (5) the presence of the correct habitat-types in the areas specified by Pichchanna and Aitanna, — I decided to once again contact Aitanna, who being a "nocturnal" shikari, was the only possible hope of enabling me to see the Double-banded Courser with minimal effort.

The survey had to be put off in late December 1985 as planned due to heavy rains. Aitanna had refused to go out during rains in October 1985. The rains subsided by the first week of January 1986. I wrote to Aitanna from Palamaner (in Chittoor district of Andhra Pradesh where I was helping Mr. Sivaganesan, field biologist of the Society in our study of an elephant herd which had entered the State) asking him to keep a watch for the 'Kalivi-kodi' and point out the locations for me when I would arrive.

Travelling on 12th January by motorcycle from Palamaner, I reached Vontimitta, a village situated in the Palakondas south of the Pennar river. Deciding to set up camp at the Vontimitta Forest Rest House, I stayed there overnight. There were no rain clouds in the night. According to local forest department officials, it had not rained since the previous night. I was getting hopeful. But, the unexpected happened!

Aitanna had gone out that night (12th January) with his colleagues for his regular shikar as usual. He claimed to have been seeing the 'Kalivi-kodi' at a particular area in

the 'foothill-scrub' over the past few days. He had been going there daily to check their presence. His main shikar quarry was the Grey Partridge and the Hare *Lepus nigricollis*.

This time, according to him, just before the 'Kalivi-kodi' spot, they flushed some partridges. The partridges rose swiftly over the scrub-line and kept flying low towards the hills. While they had their torchlights focussed on the flying birds, Aitanna heard some slight noise in a nearby bush (c. 20 cm tall/approx. time = 0130 hours). Lowering his torchlight, he saw a 'Kalivi-kodi' standing there confused and motionless in the torch-beam. Before the bird could react, Aitanna ran up to it and in the same continuing motion, picked up the bird in his hand.

He brought the bird back to Reddipalli village and kept it in his house. It started raining soon after this incident by early dawn and continued drizzling steadily on 13th January. Not knowing about the capture, I went ahead to Cuddapah and contacted the Divisional Forest Officer, Mr Yusuf Sharif, to make arrangements for the survey. The Siddavatam Range Officer informed me that Aitanna had caught some 'nela nemili' on the previous night at Reddipalli.

'Nela nemili' being a Telugu word for the Lesser Florican, was a highly improbable capture for a nocturnal shikari who works with torchlights. I returned to Vontimitta without going to Siddavatam as it had started raining heavily and one had to cross the Pennar river on a low causeway that got easily submerged at such times.

It rained heavily throughout the 14th of January making it impossible for me to travel on the motorcycle. With the help of a local

villager, I managed to send a message to Aitanna at Reddipalli by a local bus about my arrival. Late at night, the bus-driver on his return journey informed the rest-house watchman that Aitanna had caught 'some' bird and wanted my presence in the village as soon as possible.

I started early on the 15th January and rode the motorcycle in the rain to Siddavatam. The Pennar was flowing above the bridge at two spots and the Siddavatam roads were in a total mess. I reached Reddipalli by 0800 hours and went to Aitanna's house. He bade me sit and went inside to fetch the bird.

He brought the bird in his hand. There was no disturbed movement from the bird. Its legs were dangling from between his fingers. Aitanna had tied string to its legs. The neck was low, and only the top of the head could be seen.

I had not been hoping to see the Jerdon's Courser so easily. Even with the bird in his hand, it did not strike me that it could be the same. The coronal streak was not clearly visible. The Black crown and the grey upper plumage was all that was visible. The pale fleshy yellow legs had no hallux. Apart from this, I was about to decide to myself that it may be some other species when the bird raised its head and stretched its neck. And, there it was !

The broad white supercilium, the white throat with a broad rufous band below, followed by the narrow white semi-collar with a broad brown "gorget" below. Lifting Aitanna's hand, I could see the white collar "margined above and below with dusky" below the brown gorget. There was a faint white mesial line in the centre of the black crown. Now there was no doubt.

Thus, finally after 86 years, was the Jerdon's or Double-banded Courser, locally known here as the Kalivi-kodi, rediscovered.

The bird was not struggling at all in his hands. Aitanna had been keeping Grey Partridges and claimed knowledge of handling birds. He informed that he had been feeding the bird some powdered rice along with termites and black ants.

Asking him to keep the bird with him in safe custody, I rushed to Cuddapah and informed the Divisional Forest Officer. By 1330 hrs, I had informed the Curator, BNHS, Mr J. C. Daniel. He informed Dr Sálím Ali who wished to see the bird for himself. I saw the bird again on 16th January. It was fine and accepting the ants and termites being given to it by Aitanna as claimed by him. Informing him of Dr Sálím Ali's pending visit, I went to Tirupati on the same day. Dr Sálím Ali and Mr P. B. Shekar arrived at Tirupati on 19th January and reached Reddipalli, but were too late to see the bird alive. The bird died barely 4-6 hours before we could reach (1800 hours) the village. Aitanna was the saddest of us all.

Dr Sálím Ali expressed surprise at the easy method of capture as described by Aitanna. He asked the shikari if I could try with the later to capture another individual on the same night. Aitanna agreed for the attempt and asked me to reach the village by 2100/2200 hours.

Aitanna's method of capture needs recording here. He was not a "nocturnal" shikari earlier, having then preferred to use a gun. About five years ago, a bird-trapper had arrived at Reddipalli from Venkatagiri in Nellore district. This trapper had used the modified torchlights and the method was learnt by

Aitanna and his colleagues while accompanying him.

The equipment consisted of a four-cell metal tubular torchlight. The cells had been removed. The contacts for the bulb were then attached to an Enfield Bullet 350 cc motorcycle battery unit of six volts. The Battery unit was slung over the shoulder keeping a rubber sheet on the chest to prevent damage to the skin. The torchlight could only be used in moonless nights.

Aitanna informed us that the battery units needed charging and would be done at Badvel by 2100 hours. The moon would set by 2400 hours and we would have to be in the foothill-scrub by then. Leaving Aitanna to arrange these details, we left the village with the dead bird for Cuddapah where the skin was prepared for preservation by Mr P. B. Shekar.

FIRST FIELD SIGHTING

I reached Reddipalli at 2200 hours along with the Siddavatam Range Forest Officer. Collecting Aitanna, we went to Badvel to bring his colleagues who had gone there to get the two battery units charged and purchase bulbs for the torches. We reached Reddipalli at 2130 hours and prepared for the night survey.

By 2400 hours, we were nearly a kilometre inside the foothill-scrub and reached the Reserve forests' range demarcation line. The line is about two metres wide and runs along the entire length of the demarcated Lankamalai reserve forest. The non-reserve areas are regarded as 'below' the 'range-line' and reserve areas as 'above' the line. Aitanna wanted us to search both 'above' and 'below' the line alternatively. We divided into two parties with a battery-unit each and went north-south.

Aitanna's method was to keep walking till he reached the fringe of an open patch in the scrub. Standing beside a bush, he would switch on the torch and scan the open patch. Occasionally he would shine the torch into the smaller bushes. This time he had designed a net fitted into a hoop at the end of a long pole much like a butterfly collection net. This was carried by his colleague. I followed behind them carrying two 4-cell torches.

We kept walking for about an hour along the line till we neared the spot where Aitanna had previously collected the Kalivi-kodi on 12th January. It was an open patch (c. area = 70 sq m) circled by thorn scrub bushes (c. 200 cm tall). Moving behind the bushline, Aitanna focussed the torch-beam on the patch. Soon enough (0130 hours) it focussed on two birds standing motionless. Turning to his colleague and taking the net from him, he motioned for me to follow.

The birds stood motionless in the open patch. The torch beam never left them. The dark throat patch and the double bands characterising the Double-banded Courser could be easily seen. The net was stiffly held by Aitanna next to his body. Our approach being slow enough for the birds to react, they took off just as we were 4-5 metres from them. As the birds flew up, Aitanna's torch-beam followed them along with beams from my torch and the one given to the former's colleague. The birds broke their ascent flight and glided into the scrub about 10 metres towards the hills. The entire incident must have taken place within one minute.

We left the open patch and walked — with switched-off torches — towards the spot where the birds were presumed to have alighted. Each open patch was being searched quickly by a

fast scan with the torch-beam. At approx. 0215 hours, we sighted the two coursers again. They were in a smaller open patch, with a lot of gravel and rubble (consisting of broken fuelwood) lying around. I stayed behind with the third man while Aitanna rushed ahead, but failed. The birds took off the moment Aitanna broke the brushline and stepped into the open patch.

The birds took off in a vertical take-off without any fluttering wing-sound to disclose their flight. As our beams followed them, they repeated the sudden break-off from flight and noiselessly glided into the next open patch. We could see where they had landed. The torch beam from the third man had them under focus while ours' were broken by intervening bushes. Deciding that Aitanna's methods were not productive at that moment, I asked him to avoid another attempt.

We switched off our torches and walked upto the brush-line of the patch keeping the bushes between us and the birds. Aitanna and his colleague sat behind a bush and focussed on the birds. I sat behind a nearer bush and observed the birds in order to confirm that they were indeed the Double-banded Courser. I could only confirm the large eye, the dark throat patch contrasting with the two white bands, and the distinct white supercilium. The characteristic courser posture decided it, before the birds took off once again. I must have seen them for about 7-10 seconds only.

We kept walking about trying to spot more coursers. By about 0700 hours, we had seen two wolves *Canis lupus*, one jungle cat *Felis* sp., three hares, three partridges, two birds that Aitanna claimed were Stone Curlews *Burhinus oedicnemus*, one Quail *Perdica* sp? and one caniid that we could not identify. The other

party — we met at 0630 hours — had not seen any Double-banded Courser.

HABITAT OF THE DOUBLE BANDED COURSER

Jerdon (1877) mentioned "rocky and undulating ground with thin forest jungle" as the habitat of the Double-banded Courser. The Lankamalais were exactly the same. The foothills had been 'worked' approx. 40-50 years ago and were yet to recover. The natural regeneration was severely affected by grazing/browsing and fuelwood collections.

The bush-height below the line was on an average just below 100-150 cm and above the line was 200-350/400 cm. Two to four kilometres above the line, the bushes gave way to thin forests with lesser open patches.

The foothill-scrub forest types were both Thorny and Non-Thorny Scrub Jungle patches (Champion and Seth 1968). While the Thorny Scrub consisted of *Acacia*, *Zizyphus* and *Carissa* among other species, the Non-Thorny Scrub was made up of *Cassia*, *Hardwickia*, *Dalbergia*, *Butea* and *Anogeissus* among other species. Further ahead, towards the Lankamalai, in varying densities, were a gradual succession and/or an admixture of Thorn and Non-Thorn Scrub to *Hardwickia binata* forests.

The scrub patches were generally 200-400 cm in height while the *Hardwickia* was more than 500 cm tall. The vegetation was also closer and open patches were very few. The *Hardwickia* continued till the foothills and was also present on the lower gentle slopes. The tree species along with *Hardwickia binata* were *Anogeissus*, *Albizzia* and *Zizyphus* among others.

The *Hardwickia* type is followed by thorn forests dominated by *Anogeissus* along with

Albizzia, *Acacia*, *Zizyphus*, *Cassia* and *Carissa* among others. The Dry Red Sanders bearing forests were present in the upper slopes and plateaux of the Lankamalais. These forests were dominated by *Pterocarpus santalinus* along with *Anogeissus*, *Hardwickia* and *Terminalia* among other species (Reddy 1983).

Similar habitat continues from Reddipalli to Siddavatam and Cuddapah-adjuncts. North from Reddipalli, the continuity is towards Badvel and further ahead towards Ahobilam and other areas till the Nallamalais. Eastwards of the Lankamalais, both eastern and western sides of the Velikondas show similar vegetation and topographical features from Udayagiri to Somasila and on to Venkatagiri and Erpedu areas.

South of Siddavatam, the Palakondas show typical Double-banded Courser habitat in Nandalur, Vontimitta, Rajampet, Rayachoti and intervening areas. The other possible locations are the Jammalamadugu-Mylavaram; Marrutla and Rapur-Rajampet areas (Bhushan 1985a & b). Future surveys should be able to locate the Double-banded Courser in these areas.

Measurements:

(Compared to Baker 1929 in Fauna British India)

	Wing	Bill from feathers/skull	Tarsus	Tail
Siddavatam Jan. 1986				
♀ ?	171-172	18.7/24.7	66.52	67.4
Baker 1929				
♂ ♀	161-168	18-19/—	68	64-65

All measurements are in millimetres.

REDISCOVERY OF THE JERDON'S COURSER

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